

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appl. No. : 10/648,579
Applicant : Toshiyuki TAKABAYASHI
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Examiner: : Susan W. Berman
For : ACTINIC RADIATION
CURABLE COMPOSITION...
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SUPPLEMENTAL DECLARATION UNDER 37 CFR 1.132

Toshiyuki TAKABAYASHI, declares that he is the Inventor of the invention described and claimed in the above-referenced application.

He received a Bachelor's Degree in Chemistry from Kyoto University in March 1992. Since April of that year, he has been employed by Konica Corporation, now named as Konica Minolta Medical & Graphic, Inc., the Assignee of the above-identified Application. He has been engaged in research and development in the field of photographic materials and other imaging materials.

During the prosecution of the present application the U.S. Patent Examiner cited UPS 6,368,769 to Ohkawa et al. as anticipating or rendering obvious the current claims in this

application. The Examiner stated that the earlier evidence that I presented to help overcome this rejection was insufficient.

Supplemental experimental data

The following additional experiments were carried out by Toshiyuki TAKABAYASHI, the same person who supplied the previous Declaration evidence. The results of the following experiments are presented below in Table B2 (Added) along with the results earlier provided.

The purpose of the experiment is to show that the sulfonium compound having a maximum S-C bond length of 0.1688 nm shows unexpectedly superior inventive effects to other sulfonium compound having a maximum S-C bond length shorter than 0.1688 nm.

Exemplified Compound No. 5 disclosed in Table at page 12 of the present specification was selected. Exemplified Compound No. 5 has a maximum S-C bond distance of 0.1688 nm which is the shortest distance within the range of the present claims.

Exemplified Compound No. 5 was used instead of the present inventive compound 7 of Ink composition set 2.

The newly prepared ink set produced in the same manner as producing Ink composition set 2 of the present invention. The newly prepared ink set was named as Ink set ADD-1.

Inventive samples were prepared using the prepared Ink set ADD-1 in the same manner as described for producing inventive Sample Nos. 5 - 8 respectively, as described in Table 6 at page 61 of the specification. The resulting Samples numbered ADD-1a to ADD-1d were subjected to the same evaluations as described on pages 63 to 64 of the specification.

The prepared samples each used a recording materials and as listed in Table S1.

Table S1

Sample No.	Ink set	Recording Material
ADD-1a	ADD-1	OPP
ADD-1b	ADD-1	PET
ADD-1c	ADD-1	Shrink OPS
ADD-1d	ADD-1	Shasu Coated paper

The evaluation results are shown in Table B2 (Added).

TABLE B2 (Added)

Sample No.	Ambience at 10 °C and 20% RH		Ambience at 25 °C and 50% RH		Ambience at 32 °C and 80% RH		Remarks
	Character Quality	Color Mixing	Character Quality	Color Mixing	Character Quality	Color Mixing	
OH-3a	B	B	B	B	D	C	Ohka-wa
OH-3b	B	B	B	C	C	D	Ohka-wa
OH-3c	B	B	C	C	D	C	Ohka-wa
OH-3d	B	B	C	C	D	D	Ohka-wa
OH-4a	B	B	B	B	D	C	Ohka-wa
OH-4b	B	B	B	C	C	D	Ohka-wa
OH-4c	B	B	C	C	D	C	Ohka-wa.
OH-4d	B	B	C	C	D	D	Ohka-wa
ADD-1a	A	A	A	A	A	A	Inv.
ADD-1b	A	A	A	B	B	B	Inv.
ADD-1c	A	A	A	A	A	B	Inv.
ADD-1d	A	A	A	B	B	B	Inv.

The evaluation results obtained by ADD-1a to ADD-1d clearly demonstrate that the ink set using a sulfonium compound having a maximum S-C bond length of 0.1688 nm show superior effects compared to the ink set of OH-3 and OH-4 each of which contains a sulfonium compound of a maximum S-C bond length of 0.1686 nm.

Samples ADD-1a to ADD-1d showed that both Character Quality and Color Mixing were excellent at all evaluation conditions.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001, of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: December 9, 2005

Toshiyuki Takabayashi
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